

encountered the flaring red margin to the eye and the comparative darkness of the species, especially the male, impresses one greatly. Next, if the observer has formerly pitted his cunning against the Ruffed Grouse of the east he will be very agreeably surprised at the utter confidence the bird exhibits when closely approached. With perfect nonchalance he remains perched close overhead, blandly surveying the newcomer stretching his neck to full extent, and moving his head in different directions, fearing, I suppose, to miss anything of interest. In fact many birds are so foolishly confident that Indians and others call them "fool-hens" from the display of this excessive tameness.

I was told that the Indians killed many with simply a stick, or snared them from the tree, catching them by means of a small wire noose on the end of a pole, manipulated by the hunter. I tried this myself and was so nearly successful that I was satisfied it could be accomplished.

These birds afford excellent eating and are largely taken in the wilderness for the benefit of the traveller. The flesh of this species is darker and the heart larger than that of the Ruffed Grouse. Their crops, as winter approaches, are found to contain an increasing proportion of pine needles, for instance the crops in specimens taken in December were found to be entirely filled with these needles.

(3) What I have already written of the Spruce Grouse is largely applicable to the GRAY RUFFED GROUSE (*Bonasa umbellus umbelloides*) of this region. They, too, are a comparatively fearless bird but not to such an extent as the former species. They are quite numerous and occur in about equal ratio with the Spruce Grouse; if there is any difference I believe it would be in favor of *umbelloides*.

(4) Numerous small flocks of the SHARP-TAILED GROUSE (*Pedioecetes phasianellus campestris*?) were observed during October upon the bald open crests of the lesser hills, where conditions more nearly approached those of the prairie. Unfortunately I failed to collect any specimens, so am unable to state whether these were the northern variety *phasianellus*, or what is more probable, the prairie form *campestris* which is common at Edmonton, two hundred miles east. Spreadborough, in 1898, according to Macoun's Catalogue of Canadian Birds, failed to observe the species farther than 25 miles west of Edmonton. The extension of the range of this species, during the intervening fifteen years, can I believe, be attributed to the extensive settlement of the country during that time.

The birds were extremely wild and took to wing at the first sign of approach, emitting their familiar *cack, cack, cack* like the grouse of the prairie but unlike them, did not fly to near-by tree tops, preferring rather to fly away until lost to view.

(5) GOSHAWKS (*Accipiter atricapillus*), were not uncommon throughout the region. The complete isolation and ruggedness of the country, with abundance of small game, suited their rapacious natures to a nicety. I collected both adult and young birds; one of the latter shot on October 30th, measured 22 inches in length, with a wing expanse of 3 feet 5 inches. The immature birds are dark brownish over the back instead of the bluish gray of the adult.

(6) GOLDEN EAGLE (*Aquila chrysaetos*), were frequently observed. One fine specimen which accidentally found its way into one of our fox traps, afforded us a lively and interesting time before we finally liberated him. Measurements of the bird were: length three feet, expanse seven feet one inch. The region is well suited to these large birds of prey.

(7) HORNED OWL (*Bubo virginianus subarcticus*) were evidently permanent residents as I frequently heard them hooting on fine nights during my entire stay. They prey largely on that scourge of the wilderness the Varying Hare.

(8) THE HAWK OWL (*Surnia ulula caparoch*) was the first bird noted on our way to the Hay river. The first individual and the first one I had ever seen was perched upon a slivered stump about fifteen feet from the ground. At first sight I thought I had a hawk under observation due to the trimness of the bird and the long tail, but the big face presently turned towards us soon convinced me of my error. I was much amused at the habits of this little owl, as he sat so upright there in open day, as our outfit shambled down the trail almost below him, and except for a casual turn of the head, exhibited but little interest in the party. They were tolerably common throughout the region traversed. Their feed consists largely of the smaller mammalia as their action about low beaver meadows would indicate. One day I flushed a Hawk Owl from the ground and found that he was feeding on a full grown hare. If, as I suppose, the bird killed this animal itself, the action was certainly a creditable one for a bird of this size.

(9) One individual only of the PILEATED WOODPECKER (*Ceophloeus pileatus abieticola*) was observed and it was collected. They are very shy and retiring.

(10) The only other woodpecker noted was the NORTHERN HAIRY WOODPECKER (*Dryobates villosus leucomelus*). It was common in all heavy timber. The three-toed species should no doubt have been observed here, but none were seen although at Edmonton they occur occasionally. Richardson\* states, "The Hairy Woodpecker exists as far north as 63°". It remains all the year in the Northwest

\*Macoun's Catalogue of Canadian Birds.